

Baby Chick Troubles and Their Control

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A number of baby chick troubles must be overcome each year by the poultryman who wishes to raise to maturity a large number of the chicks hatched. Some men and women seem to solve these troubles by using good common sense and applying remedies that are simple and inexpensive. The object of this circular is to give in a brief way the methods of prevention and cure of the common chick troubles.

CROWDING

The use of the large colony brooder stoves has made it possible to brood several hundred chicks together in one colony house. One of the most serious problems in this method of brooding is to prevent the chicks from crowding or piling up in the corners of the brooder house or around the stove. There are some general rules which, if followed, will reduce the losses.

1. Have the brooder stove regulated before the chicks are placed in the brooder. Extremes of temperature, heat or cold, will cause the chicks to crowd. The right temperature for baby chicks is 100 degrees Fahrenheit under the hover. The house should be large enough to permit the chicks to move away from the heat, in this way they will regulate their temperature by staying in that part of the house most comfortable. If the fire gets low and the weather is cold the chicks are sure to crowd. If the stove gets so hot that the chicks hunt the corners for cool air they will often remain there after the room cools off and crowding will result.

2. Place a piece of $\frac{3}{4}$ -inch mesh chicken wire or $\frac{1}{2}$ -inch mesh hardware cloth, 1 to 2 feet high around the stove about 2 or 3 feet from the edge of the hover. This will prevent the chicks from getting away from the stove and will teach them the source of heat. It is not necessary to use this after 3 or 4 days. The circle can be enlarged during the daytime or after the chicks get a good start. It is advisable to round off the corners of the house with wire, boards, roofing paper, or by stuffing straw in them to remain thruout the brooding season.

3. Do not shake the fire down or start it up at night unless absolutely necessary. This is sure to result in too much heat, and the chicks will hunt the cool air, which is farthest from the stove. Before morning they will crowd to keep warm and a lowering of vitality and high mortality will result. There should be a heavy bed of coals in the stove at night. Hard coal is best.

4. During the late brooding season, after the continuous use of the stove is no longer necessary, there are many cold days and nights when the chicks will crowd to keep warm. On such occasions it is always advisable to start a fire. Remember that even tho the chicks may not die from such exposure

they will cease eating, their digestion will be disturbed and growth will stop. This lowering of vitality causes the little chicks to be susceptible to all the diseases known to baby chicks.

5. Teach the little fellows to roost young. One of the best poultry raisers in Ohio begins teaching the chicks to roost when they are 4 weeks old. The roosts should be made of 2- or 4-inch boards placed about 8 inches above the floor of the house. Hardware cloth or chicken netting should be nailed to the under side of the roosts to prevent the chicks from falling thru. A sloping runway can be made by placing 12-inch boards along the front edge of roost. The roosts should be constructed in such a way that the chicks cannot get under them. The entire roosting space need not extend more than 3 feet out from the back wall. It will be necessary to place the chicks on the roosts at the start. Later they can be driven on until they form the habit of roosting.

DIARRHEA

The ordinary form of diarrhea is the most common ailment of baby chicks. The common form is often confused with bacillary white diarrhea, which is contagious. The latter is so scarce as not to warrant alarm and therefore no discussion of it is included in this circular.

The causes of diarrhea are:

1. The brooder stove may get too hot and the temperature in the house reach 110 or more degrees Fahrenheit even in the coolest corners. This weakens the chicks and throws them off feed, digestion is disturbed and in a day or so a large number will be "pasted up." A high mortality usually results and all will have a weakened vitality.

2. The same thing happens when the fire in the brooder stove goes out and the chicks become chilled. Careful attention to operating the stove or brooder is the only prevention.

3. Feeding the chicks too young causes diarrhea. The egg yolk enters the chick's body just a few hours before the chick hatches. The yolk contains enough food for the chick for at least 3 days. If the baby chick is fed before this yolk is absorbed the absorption will be halted, the yolk will remain in the body and decay or putrify, causing the entire digestive system to be poisoned, and diarrhea will result. The digestive juices have not begun to be secreted before the chick is 48 to 72 hours old and feeding before this time is bound to cause trouble.

Sour milk kept before the chicks at all times will generally prevent the trouble because chicks fed on milk have more strength and vitality to withstand exposure. Many experienced poultrymen go so far as to say that if sour milk is given as the only drink diarrhea can be entirely avoided. If milk is not available as a home product the condensed semi-solid buttermilk should be purchased. This is now available from several points in Ohio and is being fed on many farms. The experience of many prompts the statement that chicks cannot be properly and successfully raised in large numbers without milk to keep them in condition.

The only satisfactory treatment, after the chicks become affected, is to give the chicks water to drink in which has been dissolved epsom salts. One pound of salts to 3 gallons of water kept before them for 1 day makes a good dose. Give fresh water in the late afternoon of the day the treatment is given.

CANNIBALISM

It is necessary to brood chicks in large numbers at a season of the year when they must be confined to the brooder house most of the time. Few poultry

raisers are able to do this without having some trouble with the little chicks picking at each other, eating toes, tails, or wings. The real solution of this trouble, were it practical, would be to hatch and brood chicks during the late spring months, when they can be on range from the very first. If the poultry breeder will select those early maturing individuals year after year a strain can be developed that can be hatched in late April or May, or even June that will develop in time for fall and winter production. This requires time and cannot be depended upon to prevent cannibalism at this time.

There are two causes for chicks eating each other:

1. **Malnutrition:** When chicks are confined to the brooder house they do not get green grass, roots, bugs, and other food which nature supplies during the spring of the year. A continued deficiency of the essential and vital elements for growth causes the chicks to pick at every living object. A drop of blood starts and this satisfies the craving for animal food. The result is well known by every poultry raiser.

2. **Overcrowding** in the brooder will sometimes lead to cannibalism. The chicks may not get an even share of the feed given and consequently their hunger and craving for the element deficient in their ration causes them to start this dreadful habit. Once the habit is started it is very hard to control.

The remedies and prevention of cannibalism are:

1. Sour milk kept before the chicks from the very first will generally prevent this trouble. Milk contains the vitamins so essential to growing chicks, and since no bugs or worms are available early in the season milk also supplies the animal protein required in the chick ration. The water may be entirely eliminated if milk is available in sufficient quantities.

2. When it is impossible to get the chicks on range, or where there is not green range, as is the case during March and early April, the chicks must be given plenty of green food such as sprouted oats and vegetables. Dandelions come up early and make a good green food.

3. When the habit has been formed or the deficient ration fed for a long period and an immediate "cure" is sought, fresh pork liver may be fed raw. Cut the liver into small pieces and feed all the chicks will eat. This not only serves as food which they crave, but will keep them busy pulling and fighting over the bits of raw meat.

4. Dig up chunks of green sod and place in the house. They will eat all fresh green leaves and tender roots and at the same time be kept busy.

5. Turn out doors on every occasion possible even tho it be for only an hour at a time.

6. Do not try to brood too many chicks in one flock. Where several hundred are to be raised, the addition of another stove and colony house is cheaper in the long run. Unless a great deal of time can be spent in the brooder house the average poultry raiser should not attempt to brood more than 300 under one stove and 200 is a much safer number.

LEG WEAKNESS

Leg weakness, like cannibalism, is common in early hatched flocks that are kept confined for several weeks. A deficiency in the ration is the cause of this trouble. Where milk is fed, and bone meal and green food are supplied this ailment does not occur. The chicks should be kept busy and forced to scratch in a litter for their grain. Care should be taken to keep the little fellows hungry and always willing to eat. If the dry mash method of feeding as described in Extension Bulletin "Brooding and Rearing Chicks," is followed and milk kept before the chicks thruout the season no leg weakness will develop.

GAPES

A few poultrymen report losses from gapes. This trouble is caused by a parasite which attaches itself to the tracheal tube and death usually results from asphyxiation. This parasite passes part of its life's history in either ground worms or plants, and one preventive is to move the chicks to fresh ground where chicks have not been raised. The old chick yard should then be plowed and wheat or oats planted. Another method of preventing this trouble is to keep the chicks confined until 4 weeks old on a floor that has been sprayed with a strong coal tar disinfectant. If sour milk is kept before the chicks during this period they will be strong enough to resist the gape worm and they may be allowed to range without danger of the worms hurting them.

INTERNAL PARASITES

Internal parasites are particularly harmful to growing chicks and may be the cause of loss in grown birds. The parasites spread from one fowl to another thru ground worms, and the best treatment is to move the chick yard if possible. If this is not done the yards should be plowed and planted to some cultivated crop or forage crop.

Symptoms.—The affected birds are thin and emaciated, have a pale color in the face with a purple or bluish comb. The feathers may become ruffled and, especially in growing chicks, slow growth and development are obvious.

Treatment.—1. Move young chicks to fresh ground.

2. Take 1 pound of finely chopped tobacco stems; steep these for 2 hours in enough water to keep them covered, mix this liquid, also the stems, with 6 pounds ground feed. Before this is fed the chicks should be prepared by reducing the feed of the previous evening to one-half the customary ration. On the day of the treatment no feed should be given until 2 o'clock P. M., when the medicated mash is fed, care being taken that each chick gets its share. Two hours later give water to drink in which has been dissolved 1 pound of epsom salts to 3 gallons of water. Keep the chicks confined for 48 hours after treatment, then clean and disinfect the house. All droppings should be hauled away.

SORE EYES

Eye trouble in baby chicks is generally caused by chaff or dust getting in the eye. The only preventive is to keep the floor clean and use a clean litter. Mash containing salt may cause sore eyes. Occasionally chicks will contract a cold and the eyes swell and become watery, but this is not common.

LICE

If chicks are affected with lice it is an indication of poor management. Hens should be treated before the eggs hatch by applying blue ointment to the skin below the vent. A clean, sanitary brooder is proof against lice. The only treatment for the chicks is to apply one drop of vaseline or grease to the top of the head and this often does more harm than good. Care should be taken not to apply too much.

CONCLUSIONS

1. Sour milk is a stimulant inducing early and rapid growth. Its use insures a low mortality and success in raising vigorous chicks. The water may be eliminated if plenty of milk is available at all times.
2. Too many chicks in a house make it difficult to prevent diseases and induce cannibalism and crowding.
3. Fresh ground with plenty of green grass makes the best chick yard.